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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,500	11/24/2000	Ron Dembo	11483-80	2505

1059 7590 03/24/2005

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EXAMINER

COLBERT, ELLA

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/718,500

Applicant(s)

DEMBO ET AL.

Examiner

Ella Colbert

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10 November 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 46-67 are pending. Claims 1-45 have been cancelled and new claims 46-67 have been added in this communication filed 11/10/04 entered as Response After Non-Final Action, IDS, and Request for Foreign Priority.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ at 193, 197 (1980).

3. Claims 46-67 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the claimed subject matter is directed to a "practical application"; or
(2) whether the invention produces "a useful, concrete and tangible result.", that is, whether the claimed subject matter is applied in a practical manner to produce a useful result. "[C]ertain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., 'a useful, concrete and tangible result.' (*State Street*, 149 F.3d 1373, 47 USPQd at 1600-01 (citing *Alppat*, 33 F.3d 1544, 31 USPQ2d at 1557)).

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract ideas, law of nature, natural phenomena) that do not apply, involve, use, or advance technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as

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opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

(A) In the present case, claims 46-67 recite an abstract idea only. The recited method and steps of the claim merely, a) computing a mark-to-future value, the mark-to-value for a portfolio being calculated from mark-to-values, and the mark-to-value being for an instrument that is a simulated expected value for the instrument; b) disaggregating the portfolio, the upside value being the expected value, the downside value being the expected value; c) determining an efficient portfolio from the plurality of portfolios, each efficient portfolio being a portfolio which the upside value is maximized with the downside value, and providing a utility function do not apply, involve, use, or advance the technological arts since all of the recited method steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to determine an optimal portfolio from a plurality of portfolios. The claims do not have a computer performing the method in the preamble or a user performing a computation at the computer or selecting at the computer a computation for a mark-to-future value.

In addition, for a claimed invention to be statutory, it must produce a useful, concrete, and tangible result. In the present case, the claimed invention produces a method computing a mark-to-future value (i.e., repeatable) used for a plurality of portfolios (i.e., useful and tangible). Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the

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technological arts as explained above, claims 46-67 are deemed to be directed to non-statutory subject matter because they are simply performing a mathematical computation which can be performed by using a pencil and paper.

With respect to the rejection under 35 U.S.C § 101, the Examiner asserts that the claimed invention does not fall within the technological arts because no form of technology is disclosed or claimed.

The method claims as presented do not claim a technological basis in the body of the claim. Without a claimed basis, the claim may be interpreted in an alternative as involving no more than a manipulation of an abstract idea and therefore non-statutory under 35 USC 101. In contrast, a method claim that includes in the body of the claim at least one structural/functional interrelationship which can only be computer implemented is considered to have a technological basis [See Ex parte Bowman, 61 USPQ2d 1669, 1671 (Bd. App. & Inter. 2001) –used only for content and reasoning since not precedential].

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Phillips et al (US 6,473,084) disclosed optimal portfolios and disaggregated.

Young et al (US 6,393,409) disclosed a portfolio and values.

Scott et al (US 6,292,787) disclosed a portfolio optimization framework.

Rebane (US 6,078,904) disclosed an investment portfolio.

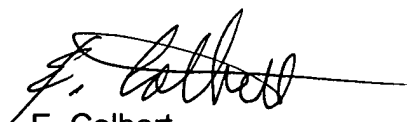
Edesess (US 5,884,287) disclosed portfolio scenarios and values.

Inquiries

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 703-308-7064. The examiner can normally be reached on Monday-Thursday, 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1038. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


E. Colbert
March 19, 2005